

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 94-147  
NPDES NO. CA0004910

WASTE DISCHARGE REQUIREMENTS FOR:

THE DOW CHEMICAL COMPANY  
WESTERN DIVISION, PITTSBURG PLANT  
PITTSBURG, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board), finds that:

1. The Dow Chemical Company, Western Division (hereinafter called the discharger), by application (Report of Waste Discharge) dated January 14, 1994, and subsequent amendment dated March 2, 1994, has applied for reissuance of National Pollutant Discharge Elimination System (NPDES) permit No. CA0004910.
2. The discharge is currently governed by Waste Discharge Requirements specified in Order No. 89-093, as amended by Order Nos. 90-151 and 91-090.
3. The discharger manufactures agricultural chemicals, fumigants, fungicides, carbon tetrachloride, hydrochloric acid, latex, and plastics. The discharger also conducts chemical development research, treats raw water for process uses, and generates both electricity and steam at the discharger's Pittsburg Plant. The discharger discharges non-process wastewater streams, treated groundwater from remediation projects, storm water runoff from areas associated with industrial activity, and other wastes as described below to New York Slough, a water of the United States.
4. The USEPA and the Board have classified this discharger as a major discharger.
5. The Report of Waste Discharge and recent self-monitoring reports describe the discharges as follows:
  - a. **Waste 001** consists of reverse osmosis reject (or brine), various sitewide non-contact cooling tower blowdown streams, power plant boiler blowdown including non-contact condensate return, canal water treatment reject streams such as supernatant from clarifier bottoms and filter backwash, and storm water from process affected areas. The average discharge rate is 0.2 million gallons per day (MGD), and the maximum is 0.5 MGD. The waste is neutralized in tanks, combined in-line with Waste 003 (described below), and then discharged through an outfall into New York Slough at a point approximately 100 feet offshore at a depth of 25 feet (Lat. 38°01'48", Long. 121°51'07").
  - b. **Waste 003** consists of treated wastewater from the groundwater treatment plant. Treatment consists of filtration, followed by two granular activated carbon beds

in series. The carbon is reactivated by steam regeneration. Waste 003 combines with Waste 001 in the discharge pipe leading to the same outfall structure as Waste 001. The discharger owns and operates several waste management units which contain wastes ranging from liquid hazardous to nonhazardous solid. All but one of these units are historical. The one active unit is a Class III nonhazardous solid waste landfill. These units are regulated by Waste Discharge Requirements Order Nos. 87-064 and 87-158. Remediation of the groundwater contaminated by some of these units is being accomplished with groundwater extraction wells and trenches. The USEPA is currently the lead agency overseeing this remediation project. The groundwater collected by these systems is treated in the groundwater treatment plant. The current flows from this source is between 150 and 200 gallons per minute (gpm). Additionally, the treatment plant intermittently receives and treats about 14 gpm from cool-down of the activated carbon beds after regeneration, 10 gpm from truck washdown and similar activities, and approximately 500,000 gallons per year of nonhazardous rainwater containing trace organic waste constituents from offsite facilities operated by The Dow Chemical Company. The current average total flow is 0.15 MGD. The discharger reports that the flow of Waste 003 may increase to 1.7 to 2.9 MGD after implementation of final groundwater remediation plans.

- c. **Waste 004** is storm water runoff from an area of approximately 175 acres. Waste 004 consists of storm water runoff, and occasionally of fire protection equipment test and flush waters and landscape irrigation runoff and water rinses of condenser coils on building air conditioner units that are collected by the drain system which historically functioned as the combined process wastewater and storm water collection system. All known process streams have been removed from the system and recycled in manufacturing processes. Storm water coming in direct contact with process units is also handled in a similar fashion. The remaining flow in the collection system consists of storm water from areas secondarily affected by process related activities (ex. access roads) within the general area shown on Figure 1. The discharge is to New York Slough through an outfall located approximately 22 feet offshore at a depth of 10 feet (Lat. 38°01'44", Long. 121°50'56").
  - d. **Waste 005** consists of storm water runoff from an area located at the southeast corner of the facility as shown in Figure 1. This area is used primarily for administrative purposes and covered/enclosed fiber spinning and module fabrication. The discharge drains to an unnamed deadend slough tributary to New York Slough (Lat. 38°01'18", Long. 121°50'42").
  - e. **Waste 006** consists of storm water runoff from an area located on the east side of the facility as shown in Figure 1. This area is primarily used for administrative purposes and covered/enclosed fiber spinning and module fabrication. The discharge drains to an unnamed deadend slough tributary to New York Slough (Lat. 38°01'22", Long. 121°50'36").
6. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986, and the State Water Resources Control

Board (State Board) approved it on May 21, 1987. The Board amended its Basin Plan on September 16, 1992, and the State Board approved it on April 27, 1993, with approval from the State Office of Administrative Law pending. Section 1 of the 1992 Basin Plan amendment, "Implementation of Statewide Plans," was remanded by the State Board in June 1994, due to its reliance on two Statewide Plans that are no longer legally in effect. The Basin Plan identifies beneficial uses and water quality objectives for surface and ground waters in the region, as well as discharge prohibitions and certain effluent limitations intended to protect beneficial uses.

7. The beneficial uses of New York Slough and contiguous waters are:
  - a. Water contact and non-contact recreation
  - b. Navigation
  - c. Commercial and sport fishing
  - d. Wildlife habitat
  - e. Estuarine habitat
  - f. Preservation of rare and endangered species
  - g. Fish spawning and migration
  - h. Industrial service and process supply
  - i. Municipal water supply
  - j. Agricultural supply
8. The Board amended the Basin Plan on October 21, 1992, to adopt a site specific water quality objective of  $4.9 \mu\text{g/l}$  for copper for San Francisco Bay. Although the State Board did not approve this amendment on procedural grounds, in the best professional judgement of this Board, from a technical standpoint, the site-specific objective is currently the best available water quality objective that is protective of the most sensitive designated use of San Francisco Bay waters with respect to copper: habitat for aquatic organisms. The effluent concentration limit for copper in this permit is based on the Board's study to develop a site-specific objective for copper, that employed the "water effect ratio" approach developed by the USEPA. This approach provides a measure of the binding capacity of natural waters (dependent on particulate matter) relative to the binding capacity of reference waters (filtered oceanic water). The study and associated staff analysis are described in a September 25, 1992, Board staff report entitled "Revised Report on Proposed Amendment to Establish a Site Specific Objective for Copper for San Francisco Bay."
9. A copper effluent limit established based on the above referenced Board staff report will mean a reduction from the current limit of  $200 \mu\text{g/l}$  to  $37 \mu\text{g/l}$ . The discharger's copper discharge data for Waste 003 range from 30 to  $44 \mu\text{g/l}$  for the past eight months, and a maximum of  $55 \mu\text{g/l}$  for the past three years. Extraction and monitoring well data submitted by the discharger indicate that as groundwater from deeper zones are added to the system, the treatment plant discharge concentrations will increase above past discharge concentrations. These data indicate that there will be a compliance problem with the new water quality based copper effluent limit. The discharger is not a significant copper loading source relative to other industries in the northbay area at this time. However, after final groundwater remediation plans are implemented at this facility, the discharger will become a more significant copper

source. Copper data from the 1993 Regional Monitoring Program show exceedances of the water quality criteria for copper in the northbay stations downstream of the discharger. For these reasons, a water quality based copper limit is necessary for this discharge to protect beneficial uses. This Order specifies a copper limit based on the staff report referenced above, and Cease and Desist Order (CDO) will be issued as a companion to this Order to address threaten violation of the limit. The CDO will specify a compliance timeschedule and require investigation of treatment technologies.

10. The Basin Plan initiated the Effluent Toxicity Characterization Program (ETCP) in 1986. The ETCP required certain dischargers to monitor their effluent using critical life stage toxicity tests for the purpose of generating information to allow development of chronic toxicity effluent limitations. The discharger participated in the ETCP with testing using the purple sea urchin, fathead minnow, and a marine alga (*Skeletonema costatum*). Of these, the data show the most sensitive species is the *Skeletonema costatum*. Overall, the level of chronic toxicity does not warrant reduction of toxicity. However, the data show effluent variability and a protential for levels chronic toxicity of concern. Based on these data, and considering the nature of the wastewater sources and discharge volume, the discharger has a reasonable potential to cause toxicity in receiving waters. Therefore, chronic toxicity effluent limitations for the discharge are necessary.
11. The State Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (hereinafter referred to as the Thermal Plan) on September 18, 1975. The discharge of Wastes 001 and 003 are subject to the requirements of the Thermal Plan.
12. Effluent and receiving water limitations in this Order are based on the plans, policies, and water quality objectives and criteria of the Basin Plan, the Thermal Plan, *Quality Criteria for Water* (EPA/5-86-001, 1986; Gold Book), applicable Federal Regulations (40 CFR Parts 122 through 131), the National Toxics Rule (57 FR 60848, 22 December 1992; NTR), and best professional judgement.
13. Order No. 89-093 specifies an effluent limit of 71  $\mu\text{g/l}$  for nickel in the groundwater treatment plant discharge Waste 003. Based on new information about the discharge, Order No. 91-090 amended the permit to include a compliance time schedule for nickel in Waste 003. The compliance deadline specified is January 1, 1993. Pursuant to the requirements of the compliance schedule the discharger initiated research and treatability studies to develop the necessary treatment for nickel but was unable to fully develop a technology in time to meet the January 1993 compliance deadline. The discharger reports that the primary cause for the failure is the unexpected complex nature of the nickel in the groundwater. Specifically, the nickel is complexed with humic and fulvic acids which made conventional metals removal technologies (ex. ion exchange, precipitation) ineffective. In response, the discharger ceased discharge of Waste 003 from January 1, 1993, until December 1, 1993, when the discharge had to resume to allow compliance with groundwater remediation goals. On December 31, 1993, the discharger violated the nickel effluent limit of 71  $\mu\text{g/l}$ . Results from samples since then contain nickel concentrations from 79  $\mu\text{g/l}$  to 330  $\mu\text{g/l}$ . Based on these data, it is expected that the discharger will continue to violate

the nickel limit for Waste 003 until nickel treatment is installed or the nature of the groundwater extracted changes. Furthermore, the limit specified in this Order is reduced from the 71  $\mu\text{g/l}$  to 65  $\mu\text{g/l}$ . This reduction is due to factoring the background concentration of nickel in the receiving water in derivation of the effluent limit from the Basin Plan objective. As a result of the ongoing violations of the current effluent limit for nickel in Waste 003, a Cease and Desist Order is issued as a companion to this Order to enforce the limitation for nickel.

14. Effluent limitations and toxic effluent standards established pursuant to Sections 208(b), 301, 304, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.
15. Effluent limitation guidelines requiring the application of best practicable technology currently available have been promulgated by the USEPA for one of the discharger's processes, the pesticide chemicals formulating and packaging subcategory (40 CFR 455, Subpart C). The limitations in this Order are considered to be those attainable by BAT in the judgement of the Board.
16. Pursuant to 40 CFR 122.44, "Establishing Limitations, Standards, and Other Permit Conditions," NPDES permits should also include toxic pollutant limitations if the discharger uses or manufactures a toxic pollutant as an intermediate or final product or byproduct. This permit may be modified prior to the expiration date, pursuant to 40 CFR 122.62 and 124.5, to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through the monitoring program included as a part of this Order.
17. The reissuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21000 of Division 13) of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
18. The Board has notified the discharger and interested agencies and persons of its intent to reissue waste discharge requirements, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
19. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED** that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

**A. Discharge Prohibitions**

1. The discharge of Waste 001, 003, and 004 at any point at which the wastewaters do not receive an initial dilution of at least 10:1 is prohibited.

2. The discharge of wastewaters other than as described in Finding 5.c., above (these include fire protection equipment testing waters, and storm water runoff from areas that are secondarily affected by process related activities) to the E-004 outfall, is prohibited.
3. The discharge of process wastewater from the discharger's pesticide formulating and packaging processes is prohibited.

## B. Effluent Limitations

1. The discharge of **Waste 001** containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Average</u>
Arsenic	µg/l	50	200
Cadmium	µg/l	--	10.7
Chromium, hexavalent <sup>(1.1)</sup>	µg/l	--	110
Copper <sup>(1.2)</sup>	µg/l	--	37
Lead	µg/l	--	23
Mercury	µg/l	0.084	1
Nickel	µg/l	--	65
Selenium	µg/l	--	50
Silver	µg/l	--	23
Zinc	µg/l	--	580
PAH <sup>(1.3)</sup>	µg/l	0.028	150
BOD <sub>5</sub>	mg/l	30	45
Chlorine	mg/l	--	0.0
Settleable Matter	ml/l-hr	0.1	0.2

[1.1] The discharger may, at their option, meet the limit for hexavalent chromium as total chromium.

[1.2] An exceedance of the concentration limit for copper specified above shall be considered a violation of the limit only if there is also a net increase above influent raw water sources based on running annual average values. A net increase occurs if the copper loading in the discharge is greater than the influent river water source. Running annual averages shall be calculated by taking the arithmetic average of the current monthly mass loading value, and all of the previous year's values.

[1.3] See Attachment B for definition of terms.

2. The discharge of **Waste 003** containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Average</u>
Arsenic	µg/l	50	200
Cadmium	µg/l	--	10.7
Chromium, hexavalent <sup>[2.1]</sup>	µg/l	--	110
Copper <sup>[2.2]</sup>	µg/l	--	37
Lead	µg/l	--	23
Mercury	µg/l	0.084	1
Nickel <sup>[2.2]</sup>	µg/l	--	65
Selenium	µg/l	--	50
Silver	µg/l	--	23
Zinc	µg/l	--	580
Benzene	µg/l	--	5
Carbon Tetrachloride	µg/l	--	5
Chloroform	µg/l	--	5
Dichlorobenzene, all isomers	µg/l	--	60
1,1-dichloroethane	µg/l	--	5
1,2-dichloroethane	µg/l	--	5
1,1-dichloroethene	µg/l	--	5
trans-1,2-dichloroethene	µg/l	--	5
1,2-dichloropropane	µg/l	--	5
Halomethanes <sup>[2.3]</sup>	µg/l	1000	--
Methylene Chloride	µg/l	--	44
Napthalene	µg/l	--	20
Tetrachloroethylene	µg/l	--	5
Toluene	µg/l	--	5
1,1,1-trichloroethane	µg/l	--	5
Trichloroethylene	µg/l	--	5
Vinyl Chloride	µg/l	--	5
Bis(2-chloroethyl)ether	µg/l	6.2	10
Bis(2-ethylhexyl)phthalate	µg/l	--	20
4-chloro-3-methylphenol	µg/l	30,000	--
2,4-dichlorophenol	µg/l	3	--
Fluoranthene	µg/l	420	--
Hexachlorobenzene	µg/l	--	0.0066
Hexachlorobutadiene	µg/l	--	20
Hexachloroethane	µg/l	--	20
Pentachlorophenol	µg/l	2.8	50
Phenol	µg/l	--	20
PCBs, total <sup>[2.3]</sup>	µg/l	0.0007	0.14
2,4,6-trichlorophenol	µg/l	3.4	--
PAH <sup>[2.3]</sup>	µg/l	0.028	150

- [2.1] The discharger may, at their option, meet the limit for hexavalent chromium as total chromium.
- [2.2] At time of adoption of this Order, the discharger is threatening to violate or is in non-compliance with the above effluent limits for copper and nickel. A Cease and Desist Order in conjunction with this Order specifies a compliance time schedule to address these non-compliance problems.
- [2.3] See Attachment B for definition of terms.
3. Neither **Waste 001** nor **003** shall be discharged with a pH outside the range of 6.0 to 9.0.
4. The combined discharge of **Wastes 001 and 003** shall meet both of the following limitations on temperature:
- The discharge shall not exceed 86 F (or 30 C), and
  - The maximum temperature of the combined discharge shall not exceed the natural receiving water temperature of New York Slough by more than 20 F or (11.1 C).
5. The combined effluents of **Waste 001 and 003**, as discharged, shall meet the following acute toxicity limitation:
- The survival of test fishes<sup>[5.1]</sup> in parallel 96-hour daily renewal bioassays of flow proportioned samples of Waste 001 and 003 as discharged shall be a three sample<sup>[5.2]</sup> median value of not less than 90 percent survival, and a single sample value of not less than 70 percent survival.
- [5.1] Test fishes as specified by the Executive Officer in the Self-Monitoring Program.
- [5.2] A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if one or more of the past two or less bioassay tests show less than 90 percent survival.
6. The combined effluents of **Waste 001 and 003**, as discharged, shall meet both of the following chronic toxicity limitations:
- an eleven sample median value<sup>[6.1]</sup> of 10 TUC<sup>[6.2]</sup>; and
  - a 90 percentile value<sup>[6.3]</sup> of 20 TUC<sup>[6.2]</sup>.
- [6.1] A test sample showing chronic toxicity greater than 10 TUC represents consistent toxicity and a violation of this limitation, if five or more of the past ten or less tests show toxicity greater than 10 TUC.

[6.2] A TUC equals 100/NOEL. The NOEL is the no observable effect level, determined from IC, EC, or NOEC values. These terms and their usage in determining compliance with the limitations are defined in Attachment C of this Order. The NOEL shall be based on a critical life stage test using the most sensitive test species as specified by the Executive Officer. The Executive Officer may specify two compliance species if test data indicate that there is alternating sensitivity between the two species. If two compliance test species are specified, compliance shall be based on the maximum TUC value for that discharge sample based on a comparison of TUC values obtained through concurrent testing of the two species.

[6.3] A test sample showing chronic toxicity greater than 20 TUC represents consistent toxicity and a violation of this limitation, if one or more of the past ten or less tests shows toxicity greater than 20 TUC.

7. The discharge of **Waste 004** containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>Limitation</u>
pH	standard units	6 to 9
visible oil	-	none observed
visible color	-	none observed

8. The discharge of **Wastes 005 and 006** containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>Limitation</u>
pH	standard units	6.5 to 8.5
visible oil	-	none observed
visible color	-	none observed

#### **B. Receiving Water Limitations**

1. The discharge of wastes shall not cause the following conditions to exist in waters of the State at any place at levels that cause nuisance or adversely affect beneficial uses:
  - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
  - b. Bottom deposits or aquatic growths;
  - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

- d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
  - e. Toxic or deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
    - a. Dissolved oxygen: 7.0 mg/l minimum. Annual median of 80% of saturation. When natural factors cause lesser concentrations than those specified above, then the discharge shall not cause further reduction in the concentration of dissolved oxygen.
    - b. Dissolved sulfide: 0.1 mg/l maximum.
    - c. pH: Variation from natural ambient pH by more than 0.5 units.
    - d. Un-ionized ammonia (as N) 0.16 mg/l maximum  
0.025 mg/l annual median
  3. **Waste 001 and Waste 003**, either individually or combined with other discharges, shall not create a zone, defined by water temperatures of more than 1 degree Fahrenheit above natural receiving water temperature, which exceeds 25 percent of the cross-sectional area of New York Slough at any point.
  4. **Neither Waste 001 nor Waste 003** as discharged shall cause a surface water temperature rise greater than 4 degrees Fahrenheit above the natural temperature of the receiving waters at any time or place.
  5. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 or the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

### **C. Provisions**

1. Storm Water Pollution Prevention Plan: The discharger shall maintain and implement a Storm Water Pollution Prevention Plan (SWPPP) acceptable to the

Executive Officer. The SWPPP shall be updated annually or when there is a change in the operation of the facility which may affect the quality of the storm water discharged from the facility, whichever is sooner. The SWPPP shall address the entire facility owned and operated by the discharger. It shall describe the management and handling of storm water runoff from the facility, and measures taken to prevent contamination of storm water or discharge of pollutants with the storm water.

2. TRE for Chronic Toxicity: If there is a violation of the chronic toxicity effluent limitation, the discharger shall conduct a chronic toxicity reduction evaluation (TRE), which shall initially involve a toxicity identification evaluation (TIE). The TIE shall be in accordance with a work plan acceptable to the Executive Officer. The TIE shall be initiated within 30 days of the date of violation. The objective of the TIE shall be to identify the chemical or combination of chemicals that are causing the observed toxicity. Every effort using currently available TIE methodologies shall be employed by the discharger. As toxic constituents are identified or characterized, the discharger shall continue the TRE by determining the source(s) of the toxic constituent(s) and evaluating alternative strategies for reducing or eliminating the constituent(s) from the discharge. All reasonable steps shall be taken to reduce toxicity to the required level. The Board recognizes that identification of causes of chronic toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based in part on the discharger's actions in identifying and reducing sources of consistent toxicity.
3. Screening Phase for Chronic Toxicity: The discharger shall conduct screening phase compliance monitoring under either of these two conditions:
  - a. Subsequent to any significant change in the nature of the effluent discharged through changes in sources or treatment, except those changes resulting from reductions in pollutant concentrations attributable to pretreatment, source control, and waste minimization efforts; or
  - b. Prior to Permit reissuance, except when the discharger is conducting a TIE and/or TRE. Screening phase monitoring data shall be included in the NPDES Permit application for reissuance. The information shall be on discharge flow between July 1, 1998 and March 1, 1999.

The discharger shall conduct screening phase compliance monitoring in accordance with a proposal submitted by March 1, 1998, to and acceptable to the Executive Officer. The proposal shall contain, at a minimum, the elements specified in Attachment B of this Order. The purpose of the screening is to determine the most sensitive test species for subsequent routine compliance monitoring for chronic toxicity.

4. Self-Monitoring Program: The discharger shall conduct monitoring in accordance with the attached Self-Monitoring Program as adopted by the Board. The Self-

Monitoring Program may be amended by the Executive Officer pursuant to EPA regulations 40 CFR 122.62, 122.63, and 124.5.

5. Pursuant to USEPA regulations 40 CFR 122.44, 122.62, and 124.5, this permit may be modified prior to the expiration date to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through the monitoring program included as part of this Order.
6. Pursuant to 40 CFR 122.44, 122.62, and 124.5, the definition of the NOEL contained in Attachment A of this Order may be modified based on guidance issued by the State Board, prior to the Permit expiration date.
7. All applications, reports, or information submitted to the Board shall be signed and certified pursuant to USEPA regulations 40 CFR 122.41(k).
8. Pursuant to USEPA regulations, 40 CFR 122.41(a), the discharger shall notify the Board as soon as it knows or has reason to believe 1) that they have begun or expect to begin, use or manufacture of a toxic pollutant not reported in the permit application, or 2) a discharge of a toxic pollutant not limited by this permit has occurred, or will occur, in concentrations that exceed the specified limits in 40 CFR 122.42(a).
9. This Order includes all items of the attached "Standard Provisions, Reporting Requirements" dated August 1993.
10. This Order supersedes the requirements of Order Nos. 89-093, 90-151 and 91-090. Order Nos. 89-093, 90-151 and 91-090 are hereby rescinded.
11. Permit Expiration: This Order expires on October 19, 1999. The discharger must file a Report of Waste Discharge in accordance with Title 23 of the California Code of Regulations, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.
12. This Order shall serve as National Pollutant Discharge Elimination System permits pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall become effective on the date of adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.
13. The discharger shall comply with all sections of this Order immediately upon adoption.

I, Steven R. Ritchie, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on October 19, 1994.



STEVEN R. RITCHIE  
Executive Officer

Attachments:

- Figure 1 - Facility Map
- Attachment A - Line Drawings for Waste 001 and Waste 003 Systems
- Attachment B - Definition of Terms for Chemical Constituents
- Attachment C - Chronic Toxicity Requirements
- Standard Provisions & Reporting Requirements, August 1993
- Self-Monitoring Program - Part A (8/93), and Part B

### III SITE DRAINAGE MAP

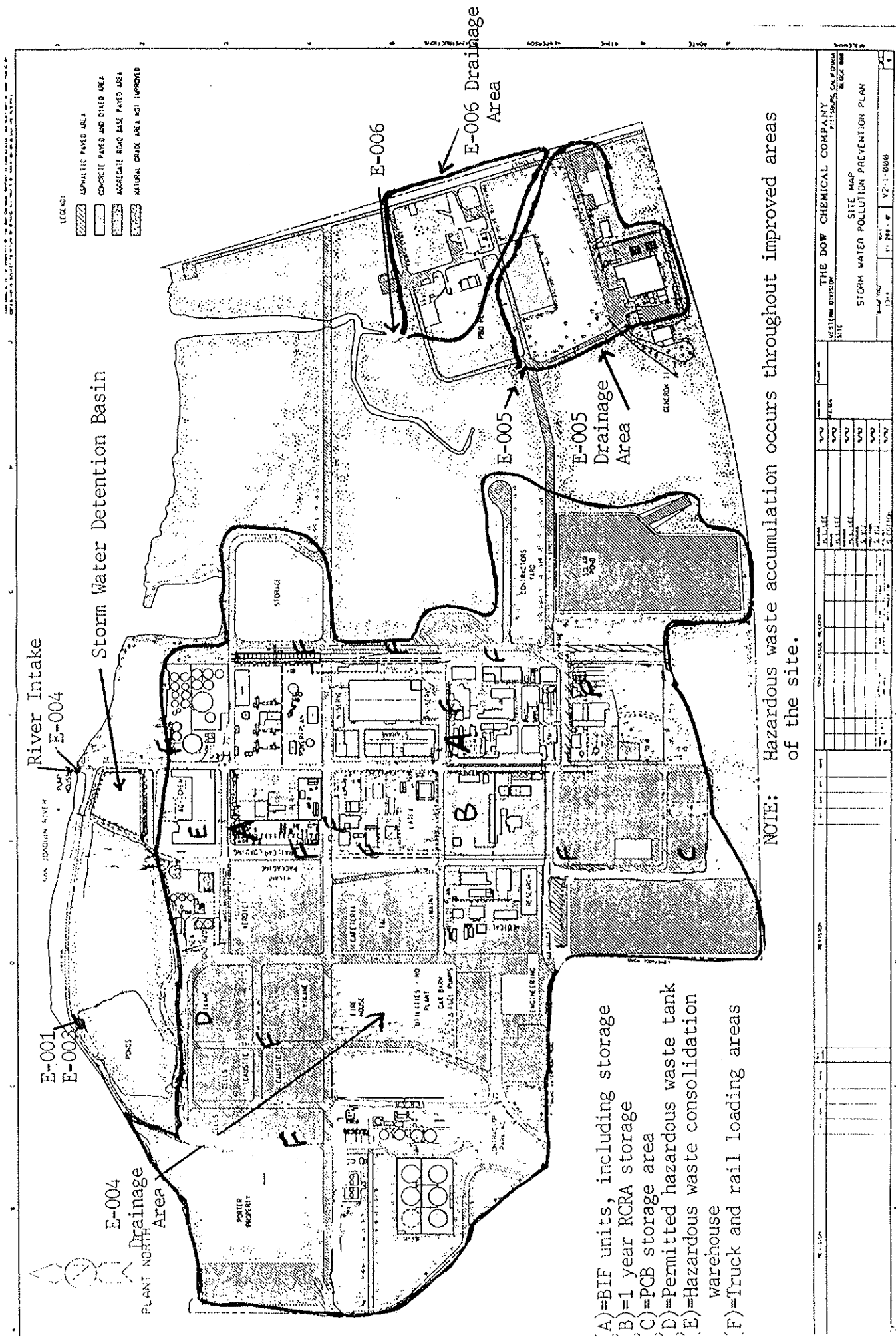
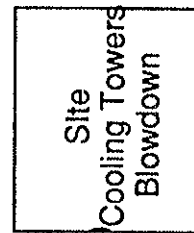
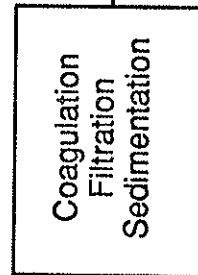
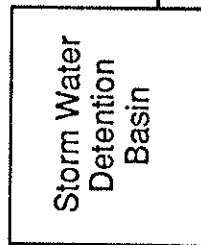
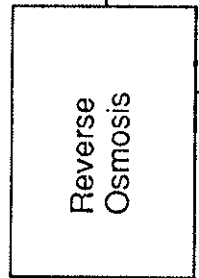
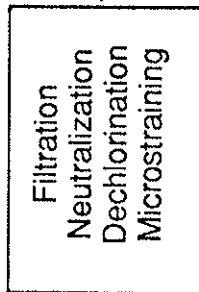
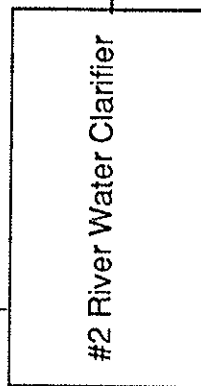


FIGURE 1

# IIA. Line Drawing for Outfall E001

Power Plant Blowdown  
25 gpm

NY Slough  
578 gpm



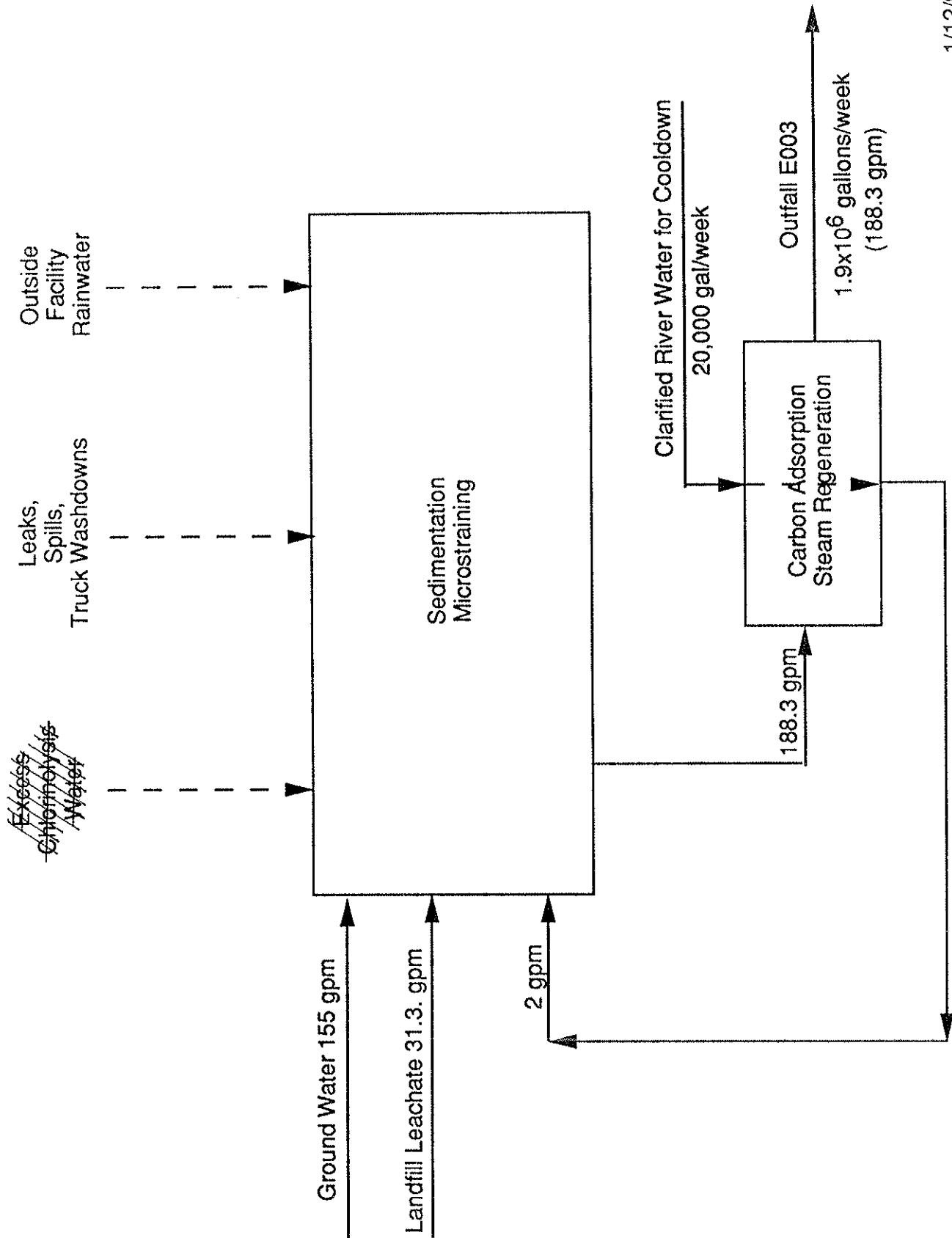
ATTACHMENT A

page 1 of 2

1/12/94

# IIA. Line Drawing for Outfall E003

These three streams are not currently discharged



## ATTACHMENT B

### DEFINITION OF TERMS FOR CHEMICAL CONSTITUENTS

CHLORDANE shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

DDT shall mean the sum of the p,p<sup>1</sup> and o,p<sup>1</sup> isomers of DDT, DDD (TDE), and DDE.

ENDOSULFAN shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.

ENDRIN shall mean the sum of endrin and endrin aldehyde.

HALOMEHTANES shall mean the sum of bromoform, bromomethane (methyl bromide), chloromethane (methyl chloride), chlorodibromomethane, and dichlorobromomethane.

PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene.

PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity equivalence factors, as shown in the table below.

<u>Isomer Group</u>	<u>Toxicity Equi- valence Factor</u>
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
2,3,7,8-hexa CDFs	0.1
2,3,7,8-hepta CDFs	0.01
octa CDF	0.001

## ATTACHMENT C

### CHRONIC TOXICITY REQUIREMENTS

#### I. DEFINITION OF NO OBSERVED EFFECT LEVEL

- A. No observed effect level (NOEL) for compliance determination is equal to  $IC_{25}$  or  $EC_{25}$ . If the  $IC_{25}$  or  $EC_{25}$  cannot be statistically determined, the NOEL shall be equal to the NOEC derived using hypothesis testing.
- B. Effective concentration (EC) is a point estimate of the toxicant concentration that would cause an adverse effect on a quantal, "all or nothing," response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-Kärber.  $EC_{25}$  is the concentration of toxicant (in percent effluent) that causes a response in 25% of the test organisms.
- C. Inhibition Concentration (IC) is a point estimate of the toxicant concentration that would cause a given percent reduction in a non-lethal, non-quantal biological measurement, such as growth. For example, an  $IC_{25}$  is the estimated concentration of toxicant that would cause a 25% reduction in average young per female or growth. IC values may be calculated using a linear interpolation method such as EPA's Bootstrap Procedure.
- D. No observed effect concentration (NOEC) is the highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specific time of observation. It is determined using hypothesis testing.

#### II. SCREENING PHASE MONITORING REQUIREMENTS

Design of the screening phase shall, at a minimum, consist of the following elements:

- Use of test species specified in Table G-1 and G-2 (attached), and use of the protocols referenced in those tables, or as approved by the Executive Officer;
- Two stages:

Stage 1 shall consist of a minimum of one battery of tests conducted concurrently. Selection of the type of test species and minimum number of tests shall be based on Table B-3 (attached); and

Stage 2 shall consist of a minimum of two test batteries conducted at

a monthly frequency using the three most sensitive species based on the Stage 1 test results and as approved by the Executive Officer.

- Appropriate controls; and
- Concurrent reference toxicant tests.

C. The discharger shall submit a screening phase proposal to the Executive Officer for approval. The proposal shall address each of the elements listed above.

TABLE C-1  
CRITICAL LIFE STAGE TOXICITY TESTS FOR ESTUARINE WATERS

SPECIES	EFFECT	TEST DURATION	REFERENCE
alga ( <u>Skeletonema costatum</u> ) ( <u>Thalassiosira pseudonana</u> )	growth rate	4 days	1
red alga ( <u>Champia parvula</u> )	number of cystocarps	7-9 days	5
giant kelp ( <u>Macrocystis pyrifera</u> )	percent germination; germ tube length	48 hours	3
abalone ( <u>Haliotis rufescens</u> )	abnormal shell development	48 hours	3
oyster ( <u>Crassostrea gigas</u> ) mussel ( <u>Mytilus edulis</u> )	abnormal shell development; percent survival	48 hours	2
Echinoderms (urchins - <u>Strongylocentrotus</u> <u>purpuratus</u> , <u>S. franciscanus</u> ); (sand dollar - <u>Dendraster</u> <u>excentricus</u> )	percent fertilization	1 hour	4
shrimp ( <u>Mysidopsis bahia</u> )	percent survival; growth; fecundity	7 days	5
silversides ( <u>Menidia beryllina</u> )	larval growth rate; percent survival	7 days	5

TOXICITY TEST REFERENCES

1. American Society for Testing Materials (ASTM). 1990. Standard Guide for conducting static 96-hour toxicity tests with microalgae. Procedure E 1218-90. ASTM, Philadelphia, PA.
2. American Society for Testing Materials (ASTM). 1989. Standard Practice for conducting static acute toxicity tests with larvae of four species of bivalve molluscs. Procedure E 724-89. ASTM, Philadelphia, PA.
3. Anderson, B.B. J.W. Hunt, S.L. Turpen, A.R. Coulon, M. Martin, D.L. McKeown, and F.H. Palmer. 1990. Procedures manual for conducting toxicity tests developed by the marine bioassay project. California State Water Resources Control Board, Sacramento.
4. Dinnel, P.J., J. Link, and Q. Stober. 1987. Improved methodology for sea urchin sperm cell bioassay for marine waters. Archives of Environmental Contamination and Toxicology 16:23-32. and S.L. Anderson. September 1, 1989. Technical Memorandum. San Francisco Bay Regional Water Quality Control Board, Oakland, CA.
5. Weber, C.I., W.B. Horning, II, D.J. Klem, T.W. Neihsel, P.A. Lewis, E.L. Robinson, J. Menkedick, and F. Kessler (eds.). 1988. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to marine and estuarine organisms. EPA-600/4-87/028. National Technical Information Service, Springfield, VA.

TABLE C-2  
CRITICAL LIFE STAGE TOXICITY TESTS FOR FRESH WATERS

SPECIES	EFFECT	TEST DURATION	REFERENCE
fathead minnow ( <u>Pimephales promelas</u> )	survival; growth rate	7 days	6
water flea ( <u>Ceriodaphnia dubia</u> )	survival; number of young	7 days	6
alga ( <u>Selenastrum capricornutum</u> )	cell division rate	4 days	6

TOXICITY TEST REFERENCE

6. Horning, W.B. and C.I. Weber (eds.). 1989. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to freshwater organisms. Second edition. U.S. EPA Environmental Monitoring Systems Laboratory, Cincinnati, Ohio. EPA/600/4-89/001.

TABLE C-3  
TOXICITY TEST REQUIREMENTS FOR STAGE ONE SCREENING PHASE

REQUIREMENTS	RECEIVING WATER CHARACTERISTICS		
	DISCHARGES TO COAST	DISCHARGES TO SAN FRANCISCO BAY ‡	
	Ocean	Marine	Freshwater
Taxonomic Diversity	1 plant 1 invertebrate 1 fish	1 plant 1 invertebrate 1 fish	1 plant 1 invertebrate 1 fish
Number of tests of each salinity type			
Freshwater †	0	1 or 2	3
Marine	4	3 or 4	0
Total number of tests	4	5	3

† The fresh water species may be substituted with marine species if:

- 1) the salinity of the effluent is above 5 parts per thousand (ppt) greater than 75 % of the time, or
- 2) the ionic strength (TDS or conductivity) of the effluent at the test concentration used to determine compliance is documented to be toxic to the test species.

‡ Marine refers to receiving water salinities greater than 5 ppt at least 75% of the time during a normal water year.  
Fresh refers to receiving water with salinities less than 5 ppt at least 75% of the time during a normal water year.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

THE DOW CHEMICAL, U.S.A.  
WESTERN DIVISION  
PITTSBURG PLANT

NPDES NO. CA0004910

ORDER NO. 94-147

CONSISTS OF

PART A (August 1993)

&

PART B Issued: October 19, 1994

## PART B

### I. DESCRIPTION OF SAMPLING STATIONS

#### A. INFLUENT AND INTAKE

<u>Station</u>	<u>Description</u>
I-1	At any point in the water supply intake system prior to any usage or treatment of intake water.

#### B. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall from the treatment facilities for Waste 001 at which all waste tributary to that discharge is present, prior to mixture with Waste 003 treatment system flows and Waste 003.
E-003	At any point in the outfall from the treatment facilities for Waste 003 at which all waste tributary to that discharge is present, prior to mixture with the Waste 001 treatment system flows and Waste 001.
E-004	At any point in the outfall for Waste 004 between the point of discharge and the point at which all waste tributary to that outfall is present.
E-005	At any point in the outfall for Waste 005 between the point of discharge and the point at which all waste tributary to that discharge is present.
E-006	At any point in the outfall for Waste 006 between the point of discharge and the point at which all waste tributary to that discharge is present.

#### C. RECEIVING WATERS

<u>Station</u>	<u>Description</u>
C-11	At a point in New York Slough located not more than 100 feet east (upstream) from the offshore end of the outfall for Waste 001 and Waste 003.

- C-12 At a point in New York Slough, located not more than 100 feet west (downstream) from the offshore end of the outfall for Waste 001 and Waste 003.
- C-13 At a point in New York Slough, located not more than 50 feet offshore from the offshore end of the outfall for Waste 001 and Waste 003.

## II. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis shall be that given in Table I (attached).

## III. MODIFICATIONS TO PART A

- A. Exclude paragraphs C.3, C.5, D.4, and E.5.
- B. Paragraph C.1 and C.2.a., under Specifications for Sampling and Analyses, are modified as follows:
1. Influent  
  
Composite samples of influent shall be collected coincident with effluent composite samples and shall not include any plant recirculation or other side stream wastes. Deviation from this must be approved by the Executive Officer.
  2. Effluent
    - a. Composite samples of effluent shall be collected on varying weekdays selected at random. At least one sampling day each year shall reflect one day of peak loading from intermittent sources (ex. cooling tower blowdown). This discharge condition shall be indicated in the monitoring report for that period. The Executive Officer may approve an alternative sampling plan if it is demonstrated to the E.O.'s satisfaction that expected operating conditions for the facility warrant a deviation from the standard sampling plan.

## IV. CHRONIC TOXICITY MONITORING REQUIREMENT

- A. Test Species and Frequency: The discharger shall collect 24-hour composite samples at E-001 for critical life stage toxicity testing as indicated below:

<u>Test Species</u>	<u>Frequency</u> <sup>1</sup>
<i>Skeletonema costatum</i> or <i>Thalassiosira pseudonana</i> (marine diatom)	Once each calendar quarter

- B. Conditions for Accelerated Monitoring: The discharger shall accelerate the frequency of monitoring to monthly (or as otherwise specified by the Executive Officer) when there is an exceedance of either of the following conditions:

1. three sample median value of 10 TUc, or
2. single sample maximum value of 20 TUc

The discharger may return to quarterly monitoring when neither of the above two conditions are exceeded with the most recent test result(s).

- C. Methodology: Sample collection, handling and preservation shall be in accordance with EPA protocols. The test methodology used shall be in accordance with the references cited in the Permit, or as approved by the Executive Officer. A concurrent reference toxicant test shall be performed for each test.

- D. Dilution Series: The discharger shall conduct tests at 100%, 50%, 25%, 10%, 5%, and 2.5%. The "%" represents percent effluent as discharged. The 100% dilution may be omitted if the marine test species specified is sensitive to artificial sea salts.

## V. CHRONIC TOXICITY REPORTING REQUIREMENTS

- A. Routine Reporting: Toxicity test results for the current reporting period shall include at a minimum, for each test

1. sample date(s)
2. test initiation date
3. test species
4. end point values for each dilution (e.g. number of young, growth rate, percent survival)
5. NOEC value(s) in percent effluent
6. IC<sub>15</sub>, IC<sub>25</sub>, IC<sub>40</sub>, and IC<sub>50</sub> values (or EC<sub>15</sub>, EC<sub>25</sub> ... etc.) in percent effluent
7. TUc values (100/NOEC, 100/IC<sub>25</sub>, and 100/EC<sub>25</sub>)

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<sup>1</sup> After at least twelve test rounds, the discharger may request the Executive Officer to decrease the required frequency of testing, and/or to reduce the number of compliance species to one. Such a request may be made only if toxicity exceeding the TUc values specified in the effluent limitations was never observed using that test species.

8. Mean percent mortality ( $\pm$  s.d.) after 96 hours in 100% effluent (if applicable)
  9. NOEC and LOEC values for reference toxicant test(s)
  10. IC<sub>50</sub> or EC<sub>50</sub> value(s) for reference toxicant test(s)
  11. Available water quality measurements for each test (ex. pH, D.O., temperature, conductivity, hardness, salinity, ammonia)
- B. Compliance Summary: Each self-monitoring report shall include a summary table of chronic toxicity data from at least eleven of the most recent samples. The information in the table shall include the items listed above under Section A item numbers 1, 3, 5, 6(IC<sub>25</sub> or EC<sub>25</sub>), 7, and 8.
- C. Reporting Raw Data in Electronic Format: On a quarterly basis, by February 15, May 15, August 15, and November 15 of each year, the discharger shall report all chronic toxicity data for the previous calendar quarter in the format specified in "Suggested Standardized Reporting Requirements for Monitoring Chronic Toxicity," February 1993, SWRCB. The data shall be submitted in either high or low density, double sided 3.5-inch floppy diskettes.

#### VI. MISCELLANEOUS REPORTING

The discharger shall submit in the monthly self-monitoring report the metallic & organic test results together with the detection limits (including unidentified peaks). All unidentified (non-Priority Pollutant) peaks detected in the EPA 624, 625 test methods shall be tentatively identified and semi-quantified pursuant to USEPA guidelines for making tentative identifications.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 94-147.
2. Was adopted by the Board and is effective on October 19, 1994.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.



STEVEN R. RITCHIE  
Executive Officer

Attachment: Table

TABLE 1  
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001		E-003		E-004	E-005 E-006	I-1	C-11,-12,-13	
TYPE OF SAMPLE	C-24	G	C-24	G	G[1]	G[2]	C-24	G	O
Flow Rate (MGD)		Cont		Cont	Cont	2/Y	Cont		
BOD, 5-day, 20°C (mg/l & kg/day)	Y								
Dissolved Oxygen (mg/l and % Saturation)								Q	
pH (units)		Cont		Cont	Cont	2/Y		Q	
Temperature (°F or C)		Cont		Cont				Q	
Chlorine Residual (mg/l & kg/day)		M							
Settleable Matter (ml/l-hr)		2/Y							
Total Suspended Solids (mg/l & kg/day)					M	2/Y			
Oil and Grease or Total Organic Carbon (mg/l)						2/Y			
Ammonia as N (mg/l)			Q					Q	
Conductivity (µmhos/cm)	Q		Q		M	2/Y	Q		
Salinity (parts per thousand)	Q		Q				Q		
Fish Toxicity, 96-hr static renewal (% surv. in undiluted effluent)	Q[3,4]		Q[3,4]						
Critical Life Stage Toxicity Test (4)	Q[3,5]		Q[3,5]						
Arsenic [6] (mg/l & kg/day)	Q		Q						
Cadmium (mg/l & kg/day)	Q		Q						
Chromium (mg/l & kg/day)	Q		Q						
Copper (mg/l & kg/day)	M		M		M	2/Y	Q		
Lead (mg/l & kg/day)	Q		Q		M	2/Y			
Mercury (mg/l & kg/day)	[7]Q		[7]Q				Q		
Nickel (mg/l & kg/day)	M		M		M	2/Y	Q		
Selenium [6] (mg/l & kg/day)	Q		Q				Q		
Silver (mg/l & kg/day)	Q		Q						
Zinc (mg/l & kg/day)	Q		Q		M	2/Y	Q		

TABLE 1 (continued)

Sampling Station	E-001		E-003		E-004	E-005 E-006	I-1	C-11,-12,-13	
TYPE OF SAMPLE	C-24	G	C-24	G	G[1]	G[2]	C-24	G	O
All Applicable Standard Observations					M	2/Y			Q
Polyaromatic Hydrocarbons [8], EPA Method 610 ( $\mu\text{g/l}$ )			Y						
Purgeable Hydrocarbons [9], EPA Method 624 or 8240 ( $\mu\text{g/l}$ )		Y[12]		M	M				
Extractable Hydrocarbons [10], EPA Method 625 or 8270 ( $\mu\text{g/l}$ )	Y[12]		M		M				
Chlorinated Dibenzodioxins and Dibenzofurans [11], EPA Method 1613 ( $\text{pg/l}$ )	Y		Y						

## LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample  
 C-24 = 24-hour composite sample  
 O = observation

TYPES OF STATIONS

I = intake and/or supply stations  
 E = waste effluent stations  
 C = receiving water stations

FREQUENCY OF SAMPLING

Cont = continuous  
 W = once each week  
 M = once each month  
 Q = once each quarter (March, June, September and December)  
 Y = once each year

2W = every two weeks  
 2M = every two months  
 2/Y = twice each year

NOTES FOR TABLE 1:

1. The E-004 grab sample shall be taken from the first storm event of each month which results in discharge of Waste 004.
2. The E-005 and E-006 grab samples shall be collected from the first storm event which results in discharge during two periods, October through December, and January through March.
3. Toxicity tests shall be conducted using flow proportioned composite samples from E-001 and E-003. If the discharge is stopped during the test, daily renewals shall

continue using effluent samples from the time prior to when discharge was stopped. Composite samples shall be stored in the dark at approximately 4 °C.

4. Compliance with the acute toxicity limitations shall be determined using tests with 3-spined stickleback until March 1996. During this period, the discharger shall conduct twelve monthly acute 96-hour static renewal bioassays using Rainbow Trout. Four of these tests shall be concurrent with the quarterly 3-spined stickleback tests. Starting in April 1996, compliance shall be determined using both 3-spined stickleback and Rainbow Trout, each fish species being counted as a separate sample in the 3-sample field. If data from this initial screening with Rainbow Trout show that the discharger may not be able to comply with the acute limit using Rainbow Trout, the discharger shall investigate the cause of the toxicity and take all reasonable steps to reduce toxicity. During this acute toxicity identification and reduction period which shall not pass beyond April 30, 1998, compliance shall be determined using only 3-spine stickleback. All tests shall be conducted in accordance with EPA protocols (Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, 4th edition, EPA/600/4-90/027).
5. Critical Life Stage Toxicity Tests to determine compliance with chronic toxicity limitations shall be performed and reported in accordance with the Chronic Toxicity Monitoring and Reporting Requirements as specified.
6. Arsenic and Selenium shall be analyzed for by one of the atomic adsorption, gaseous hydride procedures approved by the USEPA.
7. Mercury shall be sampled and analyzed twice per month for the first six months subsequent to the effective date of this Self-Monitoring Program. The discharger shall use an analytical method capable of low detection limits (less than 0.05 µg/l). At the end of this special study, the frequency of sampling for mercury shall be quarterly, and the analytical detection limits may return to 0.1 µg/l.
8. Report results for polyaromatic hydrocarbon constituents as listed in Appendix B of the Permit.
9. Report results for purgeable organics to include at a minimum the following constituents and detection limits (see also VI of SMP Part B):

(Monthly and Daily average effluent limits)			
Benzene	µg/l	--	5
Carbon Tetrachloride	µg/l	3.8	5
Chloroform	µg/l	--	5
Chlorobenzene			
Dichlorobenzene, all isomers	µg/l	--	60
1,1-dichloroethane	µg/l	--	5
1,2-dichloroethane	µg/l	--	5
1,1-dichloroethene	µg/l	3.2	5

trans-1,2-dichloroethene	µg/l	--	5
1,2-dichloropropane	µg/l	--	5
Halomethanes as listed in Appendix B of the permit			
Methylene Chloride	µg/l	--	44
Napthalene	µg/l	--	20
Tetrachloroethylene	µg/l	--	5
Toluene	µg/l	--	5
1,1,1-trichloroethane	µg/l	--	5
Trichloroethylene	µg/l	--	5
Vinyl Chloride	µg/l	--	5
and other priority pollutants as listed for this analytical method			

10. Report results for acid, base/neutral extractable organics to include at a minimum the following constituents (see also VI of SMP Part B):

(Monthly and Daily Average Permit limits)			
Bis(2-chloroethyl)ether	µg/l	0.62	10
Bis(2-ethylhexyl)phthalate	µg/l	9.9	20
4-chloro-3-methylphenol	µg/l	30,000	
2,4-dichlorophenol	µg/l	3	--
Di-n-butyl phthalate			
Diethyl phthalate			
Dimethyl phthalate			
2,4-Dimethylphenol			
Fluoranthene	µg/l	420	--
Hexachlorobenzene	µg/l	--	0.0066
Hexachlorobutadiene	µg/l	--	20
Hexachloroethane	µg/l	8.9	20
2-Methyl-4,6-dinitrophenol			
Nitrobenzene			
2-Nitrophenol			
4-Nitrophenol			
Pentachlorophenol	µg/l	2.8	50
Phenol	µg/l	--	20
2,4,6-trichlorophenol	µg/l	3.4	--

PCB constituents as listed in Appendix B of the permit.  
and other priority pollutants as listed for this analytical method

11. Report results for chlorinated dibenzodioxin and dibenzofuran constituents as listed in Appendix B of the Permit.
12. The annual sampling and analysis for purgeable (EPA 624/8240) and extractable (EPA 625/8270) organics at E-001 shall be coincident with the first weekday discharge of storm water through this outfall for each wet weather season (October through April). Sampling for these analyses at E-001 is not required if storm water is not discharged through E-001.